

Bangor Sewerage Improvement Project

Northern Ireland Water is committed to improving water quality along the North Down coast and since 2014 has been engaged in a multimillion-pound programme of work to upgrade the sewerage infrastructure, including key pumping stations, in the wider Bangor area.

Previous phases of work have involved the construction of new pumping stations at Luke's Point, Bangor Marina, Castle Park, Clondeboye Primary School and Old Belfast Road. The investment to date has helped improve the water quality from Bangor Marina to Ballyholme and provided additional capacity in anticipation of further upgrade works in Bangor West.

This latest phase of the project involves replacing the existing wastewater pumping stations at Brompton Road and Stricklands Glen; the upgrade of associated sewers in the area and the closure of the Maxwell Road combined sewer overflow. Collectively, these works are designed to protect and enhance the environment, reduce the likelihood of out-of-sewer flooding and further enhance bathing water quality.

Construction work on this £4m NI Water programme of work – which will see the installation of modern, automated wastewater infrastructure – got underway in April 2020 and will ensure compliance with NI Environment Agency standards.



Local councillors and other key stakeholders at the completed Clondeboye Rain Garden (January 2018)



Upgrade of Brompton Road Wastewater Pumping Station

Brompton Road Wastewater Pumping Station (WwPS) is located at the bottom of Brompton Road, just off the North Down Coastal Path, from where it pumps wastewater to North Down Ards Wastewater Treatment Works for treatment.

In operation for around 50 years, the existing pumping station is nearing the end of its useful life, and in its current state, offers no storage capacity for stormwater.

To resolve these issues and ensure compliance with current NI Environment Agency standards, a new, fully automated wastewater pumping station is being constructed beside the existing facility which will remain operational during the construction work.

Like the existing facility, the new pumping station will be a buried structure. It will consist of a 20m wide tank with stormwater storage capacity and will be fitted with mechanical screens to provide screening of stormwater which may be discharged during extreme weather events.

The new pumping station will be controlled by a series of electrical panels. These panels along with monitoring equipment would normally be housed in a kiosk, but at Brompton Road a 'boathouse-type' structure has been designed with aspects incorporated to mirror the appearance of the adjacent listed buildings so that it blends with its surroundings.

The method of construction being used involves the construction of the 9m deep tank above ground, but once the concrete walls have been poured to the required height, the tank will be sunk through a carefully controlled rock excavation process.

Once the tank is buried the area will be landscaped. There will be a concrete surround placed around the manholes to protect the covers and provide a hardstanding for maintenance operations. The only above-ground structure at the Brompton Road site will be the stone-clad 'boathouse' control building.

As part of the site preparations and to promote the highest levels of health & safety during construction work, a 2.4m high hoarding has been erected around the entire grass area surrounding Brompton Road WwPS and a temporary diversion path created around the site in agreement with Council.



Construction of 9m deep tank will take place above ground but the structure will be sunk on completion.

Upgrade of Brompton Road Wastewater Pumping Station

Before and After

Once constructed the new wastewater pumping station at Brompton Road will be buried and the area landscaped. The existing WwPS area will also be returned to grass while the control building will incorporate natural stone to resemble an old boathouse.

3D image
indicating the
completed
design of the
new Brompton
WwPS



Existing
Brompton
Road WwPS



Upgrade of Stricklands Glen Wastewater Pumping Station

Stricklands Glen Wastewater Pumping Station (WwPS) is a small pumping station located adjacent to Bryan's Burn stream, just off the North Down Coastal Path, which transfers wastewater to Brompton Road WwPS.

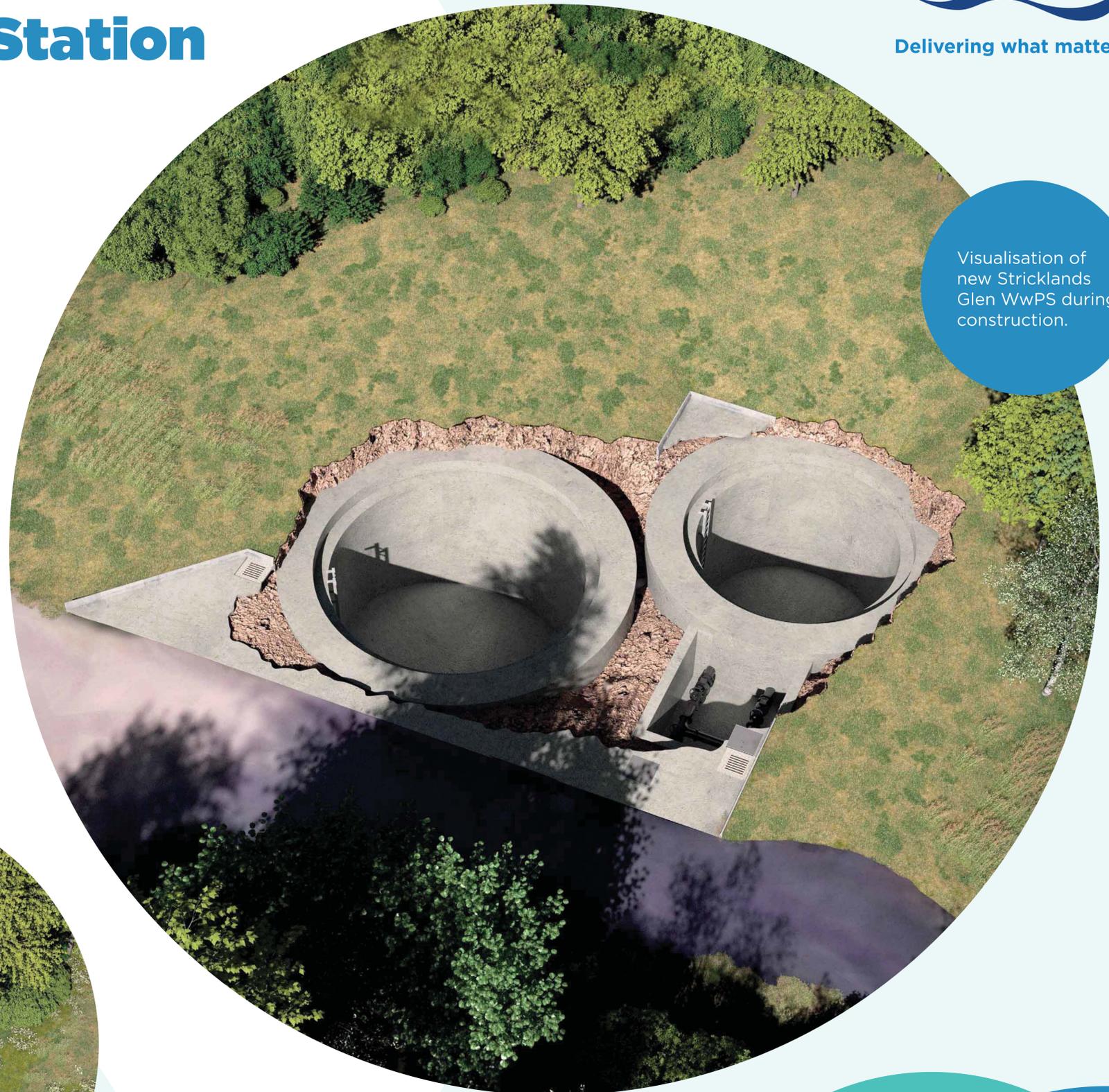
The existing WwPS at Stricklands Glen has been in operation for over 40 years and needs updating to meet NI Environment Agency water quality standards.

The upgrade involves the construction of a new wastewater pumping station beside the existing facility, which will remain in operation during the work.

The new pumping station will provide first-time storage capacity which will help protect adjacent watercourses and coastal waters during storm conditions.

Like Brompton Road WwPS, the tank at Stricklands Glen will be a buried structure. The existing building at Stricklands Glen WwPS – which houses the essential control and monitoring equipment – will be demolished and replaced with a kiosk which will be nestled into the landscape.

On completion, the area around the existing pumping station and the new underground pumping station will be landscaped in agreement with Ards and North Down Borough Council.



Visualisation of new Stricklands Glen WwPS during construction.

Aerial photo showing existing WwPS at Stricklands Glen



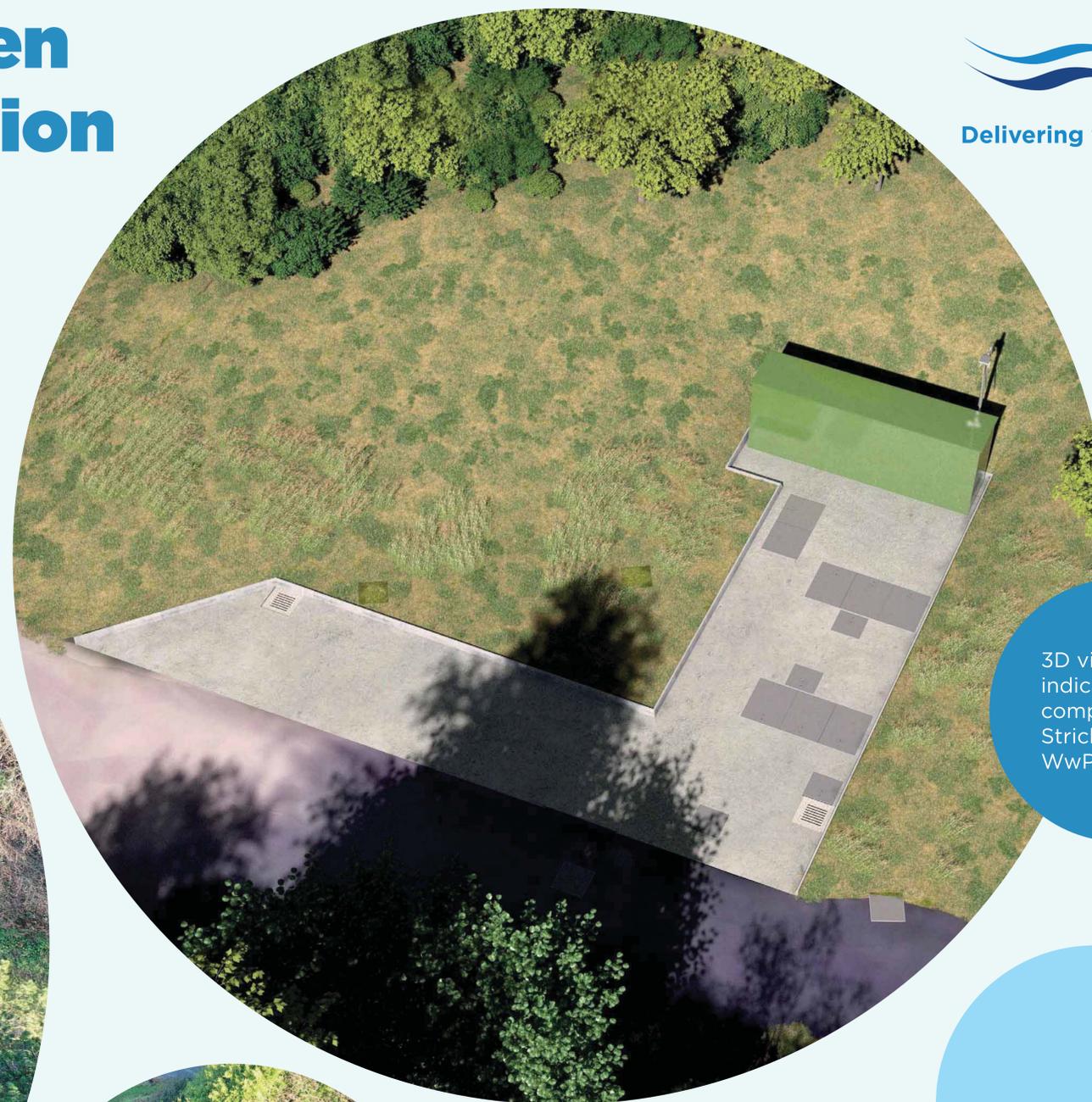
Upgrade of Stricklands Glen Wastewater Pumping Station

Before and After

The new wastewater pumping station (WwPS) at Stricklands Glen will be built underground. Planting will help the kiosk-style control building to nestle into the surrounding area.



Aerial views of the existing Stricklands Glen WwPS



3D visual indicating completed Stricklands Glen WwPS

Proposed network improvements

A number of replacement sewers and pumping mains are required as part of the overall improvements. These include:

- » Replacement combined sewer to rectify defects in the sewerage network downstream of Carnalea Golf Club.
- » Replacement pumping main along the North Down Coastal Path and Downshire Road to transfer flows from Stricklands Glen WwPS to the start of Brompton Road.
- » Replacement combined sewer along Brompton Road to transfer the flows from Stricklands Glen WwPS to Brompton Road WwPS.
- » Replacement pumping main along the Brompton Road and Downshire Road.

These sewers will reduce the risk of out-of-sewer flooding and increase the capacity of the sewerage system in the area.

This element of the project will be undertaken in phases throughout 2021.

Residents will be notified in advance of any pipelaying works taking place in the area and subsequent reinstatement of affected roads. All reinstatement works will be carried out in line with Department for Infrastructure and Council requirements as appropriate.



Minimising impact

NI Water is working in partnership with AECOM and BSG Civil Engineering to deliver the essential new wastewater infrastructure at Brompton Road and Stricklands Glen. While construction projects such as these can inevitably cause disruption, the project team are committed to minimising the impact on the local community and visitors to the area.

Some of the measures that will be implemented on the project are:

- » 2.4m high hoarding around the site to maximise safety and help suppress noise
- » Dirt and dust management to maintain clean access routes to sites
- » Restricted working hours for noisy activities
- » Ongoing monitoring of noise and vibration
- » Traffic management plans as agreed with Department for Infrastructure to accommodate increased vehicular movement during construction
- » Designated on-site parking and material storage (no construction parking in residential areas)
- » Temporary paths to maintain access to the North Down Coastal Path

The contracts manager will be onsite daily should any residents have any concerns or issues about this work and a comments/complaints box will be erected on the site hoarding so that the public can provide welcome feedback on how we are performing. NI Water's Waterline number will also be available to residents 24 hours a day, 7 days a week.

We will endeavour to keep residents and visitors to the area informed of what's happening on the project through progress updates and site signage (check out our notice board for the latest construction news).

In the short term we will work to minimise impact from this essential construction work, and in the longer term we will aim to deliver a modern, robust wastewater network which will protect and enhance the environment, and furthermore will blend effortlessly with the natural surroundings of the area.



Delivering what matters



AECOM



Delivering what matters

Working with the community

NI Water and our project teams are committed to bringing about environmental benefits - not only through the delivery of schemes such as the Bangor Sewerage Improvement Project - but through participating in community events like beach cleans when possible.

In the past we have been delighted to lend our support to environmental charities and their patrons in their strive to create cleaner beaches around the Ards and North Down Borough Council area.

As this phase of the Bangor Sewerage Improvement Project progresses, we will continue our proactive engagement with the community and assess how we can lend our support to similar environmental enhancement projects during these difficult times.

To support the local business community, our contractor will use local suppliers and labour where at all possible.



Delivering what matters



Beach clean at Portavogie (September 2019).



Delivering what matters

How you can help protect the local environment

NI Water would be grateful for your help to wipe out a problem that is widespread in Northern Ireland.

Approximately 93% of the material causing sewer blockages is made up of wipes. This includes a high proportion of baby wipes, which are not designed to be flushed.

We are appealing to the public not to flush wipes, sanitary items or cotton buds down the toilet. Find out more at niwater.com

ONLY FLUSH THE 3PS
If it's not
**PEE, POO
or PAPER**
it will block
the pipes



Delivering what matters



Play safe, stay safe

We would take this opportunity to remind the public that construction sites are dangerous areas for unauthorised persons, especially children, and we would appreciate your co-operation in ensuring that children do not play in or around the sites or machinery. Working areas will have warning signs in place to protect the public from any hazards. The public are advised to stay out of these areas for their own safety.

Please be mindful of the possibility of construction vehicles being in this area.



Delivering what matters

Benefits of these upgrades

The construction of new wastewater pumping stations at Brompton Road and Stricklands Glen and the upgrade of the associated sewerage network will deliver myriad environmental benefits to the local area.

The introduction of stormwater storage at these key pumping stations will lead to enhanced water quality in Belfast Lough and neighbouring coastal waters. This extra capacity in the sewerage network will also help prevent out-of-sewer flooding in the Bangor West area.

Both pumping stations will be furnished with the most advanced monitoring equipment available allowing NI Water to remotely monitor the performance of each pumping station and respond effectively to any problems. This technology will significantly reduce the number of visits to the pumping station by NI Water operatives.

NI Water is pleased to be able to carry out this further phase of work as part of the Bangor Sewerage Improvement Project and build on the significant investment to improve bathing water quality along the North Down coast.

